

**Practically aneutronic D-3He mirror reactor.**

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A version of the D-3He mirror reactor where the deuteron temperature is much less than the electron temperature, which, in turn, is much less than the injection energy of 3He particles, is considered. By using unique properties of the mirror devices, one can maintain deuterium distribution strongly depleted in the high energy region. This allows one to reduce the neutron power to a value 5 orders of magnitude less than the fusion power. At the same time, one can maintain very high fusion power density (up to 20 MW/m<sup>3</sup>). The drawback of this system is a low Q, in the range 0.4-0.6. However, as all the energy in the system is circulating in the form of charged particles (the bremsstrahlung losses are negligible), the system may evolve into an energy producing device as soon as high-efficiency direct energy converters are developed.

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